DOCUMENT RESUME

ED 383 306 IR 017 161

AUTHOR Januszewski, Alan
TITLE Teaching About Educational Technology in a Master of Science in Education Program from a Socio-Cultural Perspective.
PUB DATE 95
NOTE 7p.; In: Proceedings of the 1995 Annual National Convention of the Association for Educational Communications and Technology (AECT), (17th, Anaheim, CA, 1995); see IR 017 139.
PUB TYPE Reports - Evaluative/Feasibility (142) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Course Evaluation; *Cultural Influences; *Educational Technology; *Educational Theories; *Foundations of Education; *Graduate Study; Higher Education; Masters Degrees; Skills; Social Influences; Teaching Methods
IDENTIFIERS State University of New York Coll at Potsdam

ABSTRACT

There are three basic aspects of graduate programs in educational technology; the first focuses on the essential concepts, skills, principles, and procedures that students should know. The second deals with the theoretical and conceptual bases in which the essential skills, principles, and procedures are grounded. The third is concerned with the cultural foundations of the field. This paper describes the way in which foundations issues are covered at an institution, State University of New York at Potsdam, which grants masters degrees in education in the area of educational technology. Two courses which focus on education issues, "The History and Philosophy of Instructional Technology," and "Critical Issues in the Use of Technology in Education," are discussed. Some teaching strategies and considerations are also presented. (AEF)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☐ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

ED 383 306

Title:

Teaching about educational technology in a Master of Science in Education program from a socio-cultural perspective

Author:

Alan Januszewski
Assistant Professor of Education
SUNY Potsdam

IR017161

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

S. Zenor

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

BEST COPY AVAILABLE

There are three basic aspects of graduate programs in educational technology. The first focuses on the essential concepts, skills, principles, and procedures that students should know/or be able to do in order to function well in our field. Examples of this sort of thing include writing objectives, doing task analysis, and producing "good" overhead transparencies.

The second deals with the theoretical and conceptual bases in which the essential skills, principles, and procedures are grounded. Examples of this include perception theory in message design, S-R association in behavioral approaches to instructional design, and expertise oriented or connoisseurial approaches to program evaluation.

The third is concerned with the foundations of the field. Here foundations does not means the introductory issues and ideas of the field. Here it means the "cultural foundations" of the field. It refers to those issues and ideas which are the foundation of the "culture of educational technology". Examples of this include the history and definition of the field, ethical and professional issues of the field, and the hidden implications of our research methodologies and design practices. Most teaching and course work in the field had done an admirable job of dealing with the first two of these aspects but seems somewhat reluctant to address the third.

Purpose

The purpose of this paper is to describe the way in which foundations issues are covered at an institution which grants masters degrees in education in the area of educational technology.

There are two ways in which this is done in the program in educational technology at SUNY Potsdam. The first is to build it into the skills focused courses. In the course on instructional design the is time given to the subject of unintended learning outcomes. In the course on program evaluation there is time given to the different approaches and their implications in program evaluation. These subjects are not a prime area of study in those two courses. The intent behind including these topics is twofold: 1) to raise awareness about the implications of our activities in the field of educational technology; and 2) to raise the idea that the practice of the field often covers much more then is intended (we are responsible for more than what we intend).

The second way in which foundations issues are covered in the educational technology program at SUNY Potsdam are in courses which were specifically designed to do so. I teach two courses (one of which is required of all students in our program [their choice]) (GRED 615) *Critical Issues in the use of Technology in Education* and (GRED 625) *The History and Philosophy of Instructional Technology* which focus on foundations issues. Both courses cover definitions of educational technology, differing conceptions of educational technology, and the concept of professionalism. Both course explore the importance of conceptual clarity. But the similarity ends there.

The History and Philosophy of Instructional Technology (GRED 625)

The purpose of this course is to contribute to a conceptual understanding of educational technology. This is done by tracing the development of some of the popular concepts and ideas in the field of educational technology. It includes identifying and analyzing the concepts, root ideas, and strands of thought that have existed in educational technology since the first official definition was published in 1963. This course also analyzes the contributions of some of the important people in the field of educational technology in the last fifty years.

This course should help to answer the questions 'why do educational technologists think the way they do about educational technology?' and 'how has that way of thinking changed with time?'. Historian George Boas stated, "the history of ideas tells us among other things how we got to think the way we do-and if that is not of importance one wonders what is" (Boas, 1969, p. 3).

In the words of Ludwig Fleck:

> Whether we like it or not we can never sever our links with the past complete with all its errors. It survives in accepted concepts, in the presentation of problems in everyday life, as well as the language and institutions that we employ. Concepts are not spontaneously created or generated but are determined by prior thought - (Ludwik Fleck, 1979, p. 9).

Why history and philosophy?

Actually this course is about the intellectual history of the field of educational technology. As such it is about both, the history and the philosophy involved with educational technology, but I tend to approach it more from a historical perspective.

I think that history is strongly connected with the concept of change in two ways. First, the study of history helps to show how things have changed and helps to explain why they are the way they are at present. Second, history provides the understanding which is an essential component of reflective thought. The study of history can help maintain traditions, help individuals to stick to their roots, if the roots are valued strongly enough. But historical analysis may also provide more options. An historical understanding can help us to 'break out' of past patterns or shift emphases if it seems important to do so. History can greatly contribute to the conscious decisions that are made about change.

Fleck described the problem of writing a history of an academic field:

> It is very difficult, if not impossible, to give an accurate historical account of an academic discipline or a field of study. Many developing strands of thought intersect and interact with one another. All of these would have to be represented; first, as continuous lines of development and, second, in everyone of their many intersections and connections. Third, the main direction of the development, taken as an 'idealized average', would have to be described separately and at the same time. The continuity of the line of thought that has already been mapped out must continually be interrupted to introduce other lines of thought. The main current of thought would often have to be held up in order to investigate and explain any connections. Often, much has to be omitted to preserve the main current. Instead of a description of dynamic interactions one is often left with an artificial and arbitrary scheme (1979, p. 19).

Fleck is describing the difficulty in developing an historical document that follows a chronological order yet maintains a flow which keeps the reader's attention. He admits that many things are happening simultaneously. Ultimately, it is up to the disgression of the historian and writer to determine what content is included in the study and what the sequence of presentation will be.

I faced the same kind of problem when organizing my history course. In order to tell the story of the history of educational technology and analyze that account, much of the history of the field had to be left out. The course is limited by necessity. I now analyze and interpret educational technology by looking at the development of the field through two distinct yet related filters or screens. Looking at the field of educational technology through these two screens limits the scope of this course both by necessity and by definition. One simply cannot consider and give equal treatment to all of the factors which contribute to the development of an academic area of study (Fleck, 1979) in one graduate level course.

The first of these filters or screens was the intent and effort to professionalize the audiovisual field. Many members of the audiovisual field were interested in professionalizing and gaining status for the field but James D. Finn spearheaded this movement. Finn wrote and spoke extensively about the need for audiovisual specialists to become professionals. Finn formed the first academic department called Instructional Technology at the University of Southern California. He was instrumental in obtaining large amounts of funding to conduct conceptual and theoretical studies of the field, including the Technological Development Project which funded the effort to write the 1963 definition of educational technology. Finn also sought the funding to create an organization analogous to the "French Academy" for the preservation of the language inside the professional organization of the field. The efforts to increase the prestige of the

audiovisual field were political. The concepts and ideas which were central to the field of educational technology were affected by these politics, so politics and political overtones are included in this course.

The second of these screens or filters, the influence of science and engineering on the audiovisual education movement, is somewhat less political. The conceptions of science and engineering influenced the interpretation of many of the concepts and ideas that were central to the field of educational technology and were included in the field of educational technology. It is true that in some instances the desire to gain professional status gave reason to some involved in the field to adopt particular conceptions of science and engineering in education. But there were many instances when the idea of gaining status for the field was not a concern to individuals in the field. They simply adopted a particular conception of science or engineering based on their individual belief system or their academic background. As a matter of influencing the activities of the field there was still politics involved in these latter cases, but there was much less conscious thought and effort on the part of the members of the field involved in this level of politics, decision making, and action.

Frequently, particular ideas or conceptions are introduced into professional dialogue for personal reasons. Over time this motivation becomes hidden as particular ideas grow in their acceptance. Historical investigations bring this hidden motivation to light. Historians of educational technology can contribute to the self-awareness of the field. They can do this by helping to make the lost and hidden purposes into conscious ones. This result, in turn, will open them to a critical appraisal that may rekindle the discussion of the moral and ethical responsibility of the professional.

This course is not expected to provide any new prescriptions for action, nor is it designed to predict what any new actions in the field of educational technology might be. It is undertaken with the intent of analyzing the intellectual basis for the field of educational technology and bringing some of the less obvious ideas that are involved in educational technology to a more conscious level.

Critical Issues in the Use of Technology in Education
GRED 615

> A good part of the work called "theorizing" is taken up with the clarification of concepts- and rightly so. It is in this matter of clearly defined concepts that social science research is not infrequently defective (Merton, 1957, p. 114).

An often overlooked consideration in the theory, research, and practice in the field of educational technology is a lack of conceptual clarity and understanding.

The traditional answer to the problem of conceptual clarification is the commonly heard prescription: define terms precisely. Educational technologists often do this when they provide operational definitions in their empirical studies. But it seems evident that previous attempts at defining are at least partially responsible for the differing viewpoints or conceptions which exist in the field today. They are at least partly responsible for the difficulty that is encountered when trying to understand the concepts and terminology of the field that are often open to differing interpretations.

But there is a more fundamental conceptual problem. The problem is the meaning of educational technology itself. There have been a number of popular interpretations of the term "educational technology" since its inception. This has caused some problems for the field. The formal meaning of the term "educational technology" was contested from its earliest use.

Educational technology has prided itself as being an "applied" field. As such, its research emphasizes the practical or prescriptive aspects of instruction. Historical studies focus on understanding their subjects. They are not always thought of as practical. Recent content analysis studies of major professional journals and doctoral dissertations in the field of educational technology revealed that very few conceptual or historical studies have been conducted or published (Januszewski & Young, 1990; Caffarella, 1992).

Meaning is strongly tied to interpretation. There is a hesitancy on the part of members of given fields of study to question their own presuppositions or interpretations about their language habits (Fleck, 1979).

Judging from the number of articles published in the professional journals of the field of educational technology, studies which do focus on concepts, meaning, and language are not warmly received by the profession.

Concepts give our experience direction and meaning. "Our concepts structure what we perceive, how we get around in the world, and how we relate to other people" (Lakoff and Johnson, 1980, p. 3). This suggests that the concepts that we use, and the conceptual systems that we think with, are the basis of how we get through our daily lives.

Lakoff and Johnson described this idea by saying:

> But our conceptual system is not something that we are normally aware of. In most of the little things we do every day, we simply think and act more or less automatically along certain lines. Just what these lines are is by no means obvious. One way to find out is by looking at language. Since communication is based on the same conceptual system that we use in thinking and acting, language is an important source of evidence for what that system is like (1980, p. 3).

The study of concepts can help us to determine the significance of events and processes as well as just describing them. Studying concepts can also reveal more subtle aspects such as the emphasis which may be placed on certain words and actions. The subtle aspects included in certain concepts can affect professional practice.

Inherent in this last idea is the connection between history and concepts. One way to study language is to look at its historical development. This can be a long and arduous process. But if sufficient evidence is gathered and seriously considered, great insight and understanding can be attained.

Some teaching strategies and considerations

Reaction Papers

For the most part I believe that it is important that the class sessions be guided by student discussion. I still have things that I want to get across to the students but I can build that into a conversation rather than make a specific presentation. In order to prepare my students for the first eight weeks or so of these two classes I ask them to write "reaction papers". This is an idea I adapted from Don Ely at Syracuse University. A reaction paper is a 500 word maximum, discussion of the students thoughts, opinions, or reactions to the readings assigned for that day. It is intended to be personal. Students sometimes state how this reading made them think about something they never thought of before. Sometimes they can give an example from their own lives. They are not graded, but I "respond" to them by writing comments, notes, and questions on them and returning them the following class session. These reaction papers are the starting point for the discussion in class for that day. Reaction papers have several advantages: 1) students must come to class somewhat prepared; 2) students usually 'process' the information in the readings and put their own personal spin on some ideas; 3) all students have an opportunity to organize and express their opinion. Reaction papers could be used in other settings and with other purposes but I find that this works for me.

Seminar Session Leadership

Another activity that has worked well for me is the student run and operated seminar session. This tends to work better in the class size is smaller. I'm inclined to use it more in the critical issues class than I am in the history class. There are two ways that this type of seminar session could go and much depends on your (faculty member's) level of comfort with giving up control. First, there is the type where the faculty member chooses the topic and the readings and the students prepare for and conduct the class session. Here they run the class, perhaps much like you would.

The second type is where the students select the topic and the readings and run the class session. This can be a little more wide open so be cautious. I like to have the students clear the topic and the readings with me in advance so I can help them select good readings and be certain that the topic fits into the intention of

the course. More often then not students like to assign other students lots of readings but tend not to like to be assigned lots of readings by you. The selection of readings based on an intended goal is helpful to student development. Group seminar leadership can work well.

Final Papers

Most faculty members are familiar with this idea. I tend to use one of two kinds of papers. First, there is the paper that may be the result of a seminar session. Here the student incorporates and organizes much of what happened at the session. It also includes additional research gathered after the session to sharpen arguments and add and support points.

The second paper is the research paper. I tend to use this more in the history class. Papers take one of three basic forms: 1) a biographical paper, 2) a history of some specific idea or concept in the field, and 3) a time limited history of the field. These can be difficult at the Masters level because students have not yet become familiar with many of the nuances of the field. Students are encouraged to interpret as well as describe activities in the field. Be prepared to meet with students outside of class time in order to support their efforts.

References

Boas, G. (1969). *The history of ideas: An introduction.* New York: Charles Scribner and Sons.

Caffarella, E. (1992). Developing a knowledge base and taxonomy in instructional technology. *A Paper presented at the Annual Conference of the Association For Educational Communications and Technology.* Washington, D C.

Fleck, L. (1979). *The genesis and development of a scientific fact.* Chicago: The University of Chicago Press.

Januszewski, A. and M. J. Young (1990). Ten Years of ECTJ: Where is educational technology Research going? *A Paper presented at the annual meeting of the Association for Educational Communications and Technology*, Anaheim, CA.

Lakoff, G. and M. Johnson (1980). *Metaphors we live by.* Chicago: University of Chicago Press.

Merton, R. (1957). *Social theory and social structure.* Chicago: Free Press of Glencoe.